BEFORE THE APPEALS BOARD
FOR THE
KANSAS DIVISION OF WORKERS COMPENSATION

DEBORAH CHRIESTENSON	)	
Claimant	)	
VS.	)	
	)	Docket No. 247,036
RUSSELL STOVER CANDIES	)	
Respondent	)	
AND	)	
	)	
HARTFORD ACCIDENT AND INDEMNITY	)	
Insurance Carrier	)	

ORDER

Claimant appealed the July 27, 2009, Award entered by Administrative Law Judge Thomas Klein. The Workers Compensation Board heard oral argument on November 10, 2009.

APPEARANCES

William L. Phalen of Pittsburg, Kansas, appeared for claimant. Brenden W. Webb of Overland Park, Kansas, appeared for respondent and its insurance carrier (respondent).

RECORD AND STIPULATIONS

The record considered by the Board and the parties' stipulations are listed in the Award. The parties stipulated that all of the hearing transcripts and the exhibits attached to those transcripts were included in the record.[1]

ISSUES

Claimant alleges that multiple exposures to chemicals at work aggravated a preexisting chemical sensitivity. Respondent terminated claimant's employment on December 18, 1998. Accordingly, that is the last date upon which claimant may have been exposed to chemical fumes and odors while working for respondent.

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[1] R.H. Trans. at 7.

In the July 27, 2009, Award, Judge Klein found (1) claimant experienced migraine headaches of a temporary nature as the result of her chemical exposure working for respondent, (2) the medical treatment claimant received before June 17, 2002 (which was the date that Administrative Law Judge Jon L. Frobish terminated claimant's medical treatment),[2] was adequate to relieve claimant's temporary symptoms, (3) claimant did not sustain any permanent impairment, and (4) claimant failed to establish a need for ongoing or future medical treatment. Accordingly, the Judge denied claimant's requests for permanent disability benefits, the payment of outstanding medical expense, and for additional medical benefits.

Claimant urges the Board to find that (1) claimant sustained injury each and every day she worked for respondent through December 18, 1998, (2) claimant sustained permanent injury, (3) this claim should be remanded to the Judge with directions to determine the nature and extent of claimant's permanent injury or, in the alternative, either find that claimant is permanently and totally disabled or that she has a 100 percent permanent partial general disability, (4) respondent should pay the medical expenses set forth in her submission letter, and (5) claimant should be provided additional medical treatment.

Respondent maintains (1) claimant is not entitled to receive any medical benefits after December 11, 1998, as that is when her headaches from any chemical exposure she encountered at work should have subsided; (2) the diagnosis of multiple chemical sensitivity is not accepted by the Kansas Courts, (3) there is no objective evidence that claimant's symptoms were made worse by her work, and (4) the Board should adopt the opinions of respondent's medical expert witness, Dr. Jay S. Zwibelman, who was unable to find that claimant sustained any chemical injury. In short, respondent requests the Board to modify the Award and deny claimant medical benefits after December 11, 1998.

The issues before the Board on this appeal are:

1. Did claimant sustain any permanent injury or condition from her exposure to fumes or chemicals while working for respondent from April 1997 through December 18, 1998?

2. If so, what is the nature and extent of her injury and disability?

[2] The Order by Judge Frobish was actually dated June 20, 2002, but Judge Klein referenced the date as June 17, 2002.

3. Is claimant entitled to receive ongoing and future medical benefits or, instead, should claimant's entitlement to medical benefits be terminated as of December 11, 1998, or June 17, 2002, or some other date?

4. Is respondent responsible for paying claimant's outstanding medical bills?

FINDINGS OF FACT AND CONCLUSIONS OF LAW

After reviewing the entire record and considering the parties' arguments, the Board finds and concludes:

Claimant is 55 years old and began working for respondent, a candy manufacturer, in April 1997 as a plant nurse, safety coordinator, and workers compensation benefits coordinator. Claimant describes herself as a chemical-sensitive person, who was relatively symptom-free before commencing work for respondent. She initiated this claim believing that during the 1½ years that she worked for respondent she encountered chemicals at work on numerous occasions, which permanently aggravated her sensitivity to chemicals.

The evidence is uncontradicted that claimant encountered chemical fumes and odors at work. The record, however, fails to reveal the concentration of those chemical fumes. Accordingly, the outcome of this claim rests upon claimant's testimony about her exposures to fumes at work, contemporaneous medical records that describe her symptoms, and expert medical opinion concerning a controversial area of medicine that is evolving. In short, this is a difficult claim.

Claimant's office in respondent's plant was located across from respondent's laundry room, which emitted strong fumes of bleach. Claimant's testimony is uncontradicted that she complained of the odor and after a month or so it was determined the "bleach setting was set at least ten times higher than what it should have been."[3] Claimant contends it was at about that time she began having respiratory symptoms and headaches.[4]

Claimant also believes she was exposed at work to methyl bromide gas, which was used by respondent to fumigate nuts. According to claimant, that gas would escape from the fumigation chamber through a faulty seal. Claimant believes she was exposed to the gas when walking through the plant. Claimant testified that co-workers who worked around

[3] Chriestenson Depo. at 11.

[4] *Id.*

the fumigation chamber complained of symptoms such as headaches and respiratory problems.

According to claimant, she performed formal safety tours of the plant every month in addition to venturing out into the plant once or twice each week for other reasons. The safety tours she conducted would last anywhere from 1½ to 2 hours. But trips into the plant to see particular employees might take only 15 minutes. During these tours into the plant, claimant encountered pesticides, exhaust fumes from trucks, paint fumes, and on at least two specific occasions anhydrous ammonia.

Claimant maintains that she reacted to the pesticide fumes at work with headaches, (sometimes) tremors, nausea, and that she "just felt crappy."[5] She recalls one specific incident in June 1998 when a pesticide bomb was released in the nut chamber and she had excruciating headaches and shortness of breath.

Claimant also described two occasions at work when she was exposed to strong fumes of anhydrous ammonia, which the plant used in its cooling system. Claimant believes that during her first month at work an alarm sounded and the plant was evacuated due to an ammonia leak. But before claimant exited the plant, her eyes, nose and throat began burning and she began having problems breathing. According to claimant, that ammonia leak was caused by a broken pipe near her office door. Claimant believes after that incident she began having frequent headaches.[6]

The second exposure to anhydrous ammonia fumes occurred during a plant tour when claimant opened a door and found people in scuba gear working on a leaking pipe. The alarm had not sounded. Claimant experienced shortness of breath, burning eyes, and a headache.

Paint fumes also bothered claimant. At an October 1999 preliminary hearing, claimant testified she developed excruciating headaches, which required medical treatment, after smelling paint fumes in respondent's plant for about a week during September 1998.[7]

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[5] *Id.*, at 16.

[6] *Id.*, at 17.

[7] But at that hearing claimant introduced the September 4, 1998, medical report from Dr. Lizbeth D. Cravens in which the doctor indicated claimant's tremor went away completely for two weeks when she was at home after taking Mysoline and that claimant was able during that time to do things such as cook and *paint* her house. Claimant, however, denies painting her house as it has vinyl siding and vinyl walls.

Claimant's final exposure at work to concentrated fumes occurred on December 8, 1998, when someone shut her office door after stripping and waxing the floor. She maintains she spent 15 to 20 minutes in her office that day getting necessary items. That incident caused an immediate headache. Moreover, it caused claimant to ask to see respondent's workers compensation doctor.

After she began experiencing shortness of breath and headaches, claimant informed two personnel managers, the plant manager, the head of the safety team, and the head of quality control of her symptoms. Moreover, claimant asked to be notified whenever respondent planned to use pesticides or engage in some other activity that might exacerbate her symptoms. But respondent did not do so.

Claimant eventually saw company physician Dr. Brian D. Wolfe. On December 11, 1998, Dr. Wolfe diagnosed claimant as having headaches from chemical exposure. Moreover, the doctor found claimant was having ataxia (problems with walking and balance) that he believed was related to claimant's work. The doctor recommended that claimant avoid chemical exposures. That was the last time Dr. Wolfe saw claimant. A week later on December 18, 1998, claimant was fired.

In summary, claimant attributes the following symptoms to her exposures working for respondent: chronic migraine headaches, shortness of breath, severe muscle pain in both legs, leg spasms, right hand tremors, and loss of memory. She is on oxygen 24 hours a day and tries to avoid public places and chemicals, which she asserts will temporarily exacerbate her symptoms. In addition, she contends the lung problems she developed while working for respondent have led to heart damage. At the October 1999 preliminary hearing, claimant submitted a list of over 160 chemical substances and compounds that she encountered in respondent's plant.

Claimant contends that before she began working for respondent she was feeling pretty well as she had undergone a detoxification program for chemical exposure and had switched to using natural products at home. But she now maintains she is unable to work due to the chemical exposures she encountered in respondent's plant. In June 2008, claimant testified she had been receiving Social Security disability benefits for three or four years.

Claimant's medical history

This claim is further complicated by claimant's diagnosis of chemical sensitivity several years before she began working for respondent. According to claimant her symptoms first began in 1986 shortly after installing new carpeting in her home. One doctor has suggested the carpeting contained formaldehyde. In any event, before commencing work for respondent claimant was diagnosed as having multiple chemical

sensitivities, neurotoxic ataxia, and epilepsy in the left temporal lobe. Nonetheless, claimant maintains her headaches were under control and that she had not experienced any for months before she began working for respondent.[8]

At her October 1999 preliminary hearing, claimant admitted she had experienced seizures, chronic headaches, and tremors in her right arm before working for respondent.[9] The medical records also indicate that in 1986 claimant had vertigo, jerking and cramping in her legs, myofascial pain, trigger points, concentration problems, and speech difficulties. She further admits having swelling in her hands and feet for several years.[10]

Another complicating factor in this claim is claimant's history of smoking. Claimant admits smoking cigarettes both before and after working for respondent. In July 2000 claimant testified she quit smoking in January of that year.[11] But in June 2008 claimant testified that she had quit smoking and had not smoked for two years.

As expected, the doctors whom claimant has seen do not agree whether her exposures to chemicals and fumes at work for respondent have caused any injury or impairment.

Dr. Richard L. Hull began treating claimant in 1983. Before retiring in 2008, Dr. Hull was board-certified in family practice, pain management, and sclerotherapeutic pain. His records indicate claimant had been diagnosed with epilepsy in 1992, but she was symptom-free after she began taking Dilantin. The doctor also noted in 1996 that claimant had a history of mitral valve prolapse syndrome and cervical cancer. Before claimant began working for respondent, Dr. Hull treated claimant primarily for headaches that waxed and waned. And according to the doctor, claimant sometimes went for prolonged periods without any headaches.

But claimant's condition definitely changed after she began working for respondent. In February 1998 claimant consulted Dr. Hull for symptoms she related to chemical exposure at respondent's plant. Dr. Hull believed the symptoms claimant was experiencing were neurological in nature and quite bizarre; namely, muscle spasms and cramps, tingling, numbness, progressively severe headaches, lethargy, malaise, forgetfulness, and the slurring of words. Moreover, the doctor noted that when claimant began working for

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[8] P.H. Trans. (Oct. 5, 1999) at 29.

[9] *Id.*, at 26, 29.

[10] Chriestenson Depo. at 34.

[11] P.H. Trans. (July 11, 2000) at 33.

respondent her headaches began occurring more frequently and they were more severe. He also noted claimant had a marked increase in pain, tremors, and muscle spasms.[12] Accordingly, Dr. Hull referred claimant for a neurological consultation.

In February 1998, claimant saw Dr. J. Woody Harlan, a neurologist. At that point, claimant had been working for respondent for approximately 10 months. Claimant's chief complaint was leg spasms that had occurred for the last six to eight months. Claimant also complained of cutaneous sensitivity in the right lateral calf and medial thigh. In a March 1998 letter to Dr. Hull, Dr. Harlan advised he was skeptical that exposure to chemicals had caused all of claimant's symptoms. Dr. Harlan diagnosed claimant as having common migraine headaches and also noted that claimant was smoking a pack of cigarettes daily.

In late June 1998, claimant saw Dr. Hull for tremor in her right arm and cramping in her legs. Claimant continued to see Dr. Hull in August and September 1998 for right arm tremor and weakness and ataxia in the right leg. She told Dr. Hull her tremor went away after taking Mysoline but it returned within three hours of returning to work for respondent.

Dr. Hull treated claimant through July 2008, when he retired. The doctor diagnosed chemical sensitivity with malaise and chronic fatigue and fibromyalgia. In short, Dr. Hull believed claimant had exacerbated a preexisting chemical intolerance due to being exposed to paint and other fumes at work. He knew of claimant's longstanding problems with formaldehyde and other certain chemicals from the 1980s. He also noted that tension and stress contributed to claimant's ongoing headaches. Moreover, in December 1998, he noted that claimant's smoking contributed to her symptoms.

According to Dr. Hull, chemical intolerance is in the nature of an allergic disease in which the body is sensitive to agents and any exposure to those agents exacerbates a multitude of neurological symptoms and musculoskeletal symptoms. He indicated that chemical sensitivity was a fairly new diagnosis but more and more evidence was surfacing to prove its existence. He also noted the disease was becoming common in the race car industry due to the exposure to fumes.

Dr. Lizbeth D. Cravens, another neurologist in Dr. Harlan's group, saw claimant in June 1998 at Dr. Hull's request. In a June 1998 letter to Dr. Hull, Dr. Cravens indicated she found it difficult to believe that claimant's problems were related to chemical exposure. And in April 1999, Dr. Cravens suggested that claimant contact the American Academy of Environmental Medicine, but claimant declined. Claimant also declined to be tested for HIV as she insisted her symptoms were caused by being exposed to Toluene and

[12] Hull Depo. at 38.

trimetellic substances in carpeting. Dr. Cravens, however, admits she has no expertise with chemical toxicity.

In January 1999, claimant saw another neurologist, Dr. Donald K. Hopewell. Dr. Hopewell wrote Dr. Wolfe in January 1999 and advised that exposure to fumes was a common trigger of migraine headaches. Dr. Hopewell also noted that claimant had a consistent history of increased headaches and tremors associated with exposure to certain types of fumes and chemicals and that those complaints should be assumed valid. Dr. Hopewell wrote, in part:

> Given the consistent history that the patient presents, the fact that she did clearly make these problems known prior to her employment and there was clear evidence of chemicals used around her at the time of her exacerbation, I think we have to assume that her complaints are valid. I have no way to either confirm or disprove her complaints with any type of diagnostic intervention and I would suggest approaching as she requests which is simple avoidance of exposure to these substances.[13]

Nonetheless, Dr. Hopewell also indicated there was a great deal about claimant's physical examination that suggested his findings were not entirely physiologic. But the doctor could not state with absolute certainty that his findings did not have an anatomic or physiologic basis.

Respondent's insurance carrier requested Dr. Jay S. Zwibelman, who is board-certified in psychiatry and neurology, to evaluate claimant. Dr. Zwibelman examined claimant the first of two occasions on February 18, 1999. The doctor took a history that claimant had inhaled chemical odors for about 15 minutes and that she was complaining of headaches, right arm tremor, problems sleeping, memory loss, anxiety, chronic pain, problems with balance, and leg pain. The doctor found claimant's examination to be essentially normal and suggested that it was possible claimant's tremor was not physiologic. The doctor noted that claimant had both multiple trigger points and myofascial pain, but concluded those symptoms were not related to chemical exposure. In an April 1999 report, Dr. Zwibelman stated unequivocally that claimant's chronic headaches and myofascial pain were not related to any chemical exposure at work. Moreover, the doctor noted that any exacerbation of claimant's headaches was only temporary and should have lasted only two to 72 hours.

Dr. Zwibelman found it interesting that claimant continued to smoke tobacco, which he declared an extremely toxic chemical. In his April 1999 report, the doctor recommended an inpatient pain program to treat claimant's headaches and myofascial pain.

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[13] P.H. Trans. (Oct. 5, 1999), Cl. Ex. 1.

In January 2000 claimant consulted Dr. William J. Rea, who operates the Environmental Health Center in Dallas, Texas, and who holds himself out as being board-certified in environmental medicine and an expert in chemical illness. Dr. Rea concluded claimant had a significant chemical exposure that caused multi-organ dysfunction. The doctor recommended treatment to detoxify the chemicals in claimant's body. Claimant began receiving treatment (dry sauna, oxygen therapy, medications) from Dr. Rea but that treatment was cut short when a member of this Board reversed a preliminary hearing order authorizing such treatment.

In an April 10, 2000, letter, Dr. Rea stated that blood tests showed claimant had high levels of toluene, 2-methylpentane, 3-methylpentane, and n-hexane. The doctor concluded claimant had experienced a significant chemical exposure that resulted in multi-organ system dysfunction. Consequently, Dr. Rea recommended intradermal testing to determine the extent and severity of claimant's immune system dysfunction; intravenous therapy with vitamins, minerals, and amino acids to boost the immune system, replenish claimant's depleted nutrient pools, and reduce symptoms; and oxygen therapy.[14]

In 2006, Dr. Hull referred claimant to Dr. Grace E. Ziem of Emmitsburg, Maryland. Dr. Ziem is an occupational medicine physician with training in toxicology and biochemistry. She graduated from the University of Kansas College of Medicine; obtained a Master of Public Health degree from Johns Hopkins; obtained a Master of Science in Hygiene degree from the Harvard School of Public Health; obtained a Doctorate in Public Health degree from Harvard; taught 25 years at Johns Hopkins' School of Public Health; received a fellowship from the National Science Foundation; is an assistant professor in the Department of Epidemiology and Preventive Medicine at the University of Maryland School of Medicine where she also helps develop curriculum; is a member of the editorial board of the International Journal of Occupational Medicine and Toxicology; is a co-investigator of Johns Hopkins Multicenter Study of MCS Immunology; is a medical consultant for the State of Maryland OSHA and a physician consultant for the New Jersey Department of Health where she developed fact sheets for thousands of chemicals; is a consultant to the United States government, including Congress, the Environmental Protection Agency, the National Institute for Safety and Health, and the Agency for Toxic Substances and Disease Registry; and is a consultant for, among other entities, the World Health Organization, Maryland Department of Environment, American Lung Association, and the California Department of Health.

[14] P.H. Trans. (July 11, 2000), Cl. Ex. 1 at 2, 3.

Dr. Ziem is not board-certified in any particular medical specialty although she is board-eligible. Dr. Ziem practices medicine and specializes in chemical illness, which she asserts is a subspecialty recognized by the American Medical Association.[15]

In June 2006, Dr. Ziem examined claimant and took a comprehensive history of claimant's illness. The doctor noted that in respondent's plant claimant had been exposed to bleach (an inorganic chlorine that converts to chloroform in the body that is toxic to the brain and liver), methyl bromide, pesticides, anhydrous ammonia, triphenyltin (another neurotoxic agent), and exhaust fumes from vehicles. The history gathered by Dr. Ziem will not be quoted as it is quite lengthy and comprises nearly 3½ pages of her June 28, 2006, report.

Dr. Ziem diagnosed claimant as having toxic encephalopathy that developed from the combination of exposures in respondent's plant. The doctor also diagnosed peripheral neuropathy, reactive upper and lower airway disease, and further found that claimant exhibited classic inflammation with widespread aching, fatigue, and an inflammatory process involving other organs such as the gastrointestinal, genital/urinary, blood vessel lining, and skin.

Dr. Ziem tested claimant with an epidemiologic instrument developed at Johns Hopkins that was designed to identify the types of substances that cause exacerbation and the intensity and duration required to cause such exacerbation of symptoms. That instrument purportedly provided objective evidence that claimant's respiratory and neurologic symptoms were exacerbated by low doses of irritants and neurotoxic compounds that would not affect the healthy population.[16] The doctor testified, in part:

> Q. (Mr. Phalen) And when you used this instrument developed by Johns Hopkins with Ms. Chriestenson what were the results?
>
> A. (Dr. Ziem) She also had exacerbation at low duration and low intensity exposure of -- with irritants and volatile compounds; in other words, low doses of neurotoxic compounds as well as low doses that would not affect the healthy population, that did not affect her previously. And those exacerbations would cause exacerbation of respiratory symptoms, both upper and lower respiratory symptoms, as well as neurologic exacerbation, difficulty thinking, cognitive effect; in other words, with a

[15] Ziem Depo. at 74.

[16] *Id.*, at 14.

> lack of oxygen to the brain causing a sensation of feeling like she's going to pass out and the shakiness and tremor.[17]

Dr. Ziem testified the test results from the epidemiologic instrument used were objective evidence that claimant is impaired due to chemical exposures. Moreover, the doctor's testimony is uncontradicted that the instrument has been validated and its results published in peer-reviewed medical literature.

The doctor believes the widespread inflammation in claimant's respiratory, gastrointestinal, genital/urinary tract, skin and endothelium (blood vessel lining) was caused by the biochemical mechanism of neural sensitization, which is typical of severe chemical exposure. Indeed, the doctor believes claimant's symptoms are classic for chemical illness and most are caused by a biochemical reaction. The doctor represents that claimant's findings were corroborated by the physical examination and the various tests performed.[18]

Urinary testing purportedly revealed claimant had an absence of vitamin C, which the doctor explained was indicative of chronic inflammation as inflammation releases free radicals and the body uses antioxidants to protect lipid tissue. Neurologic testing also indicated claimant had moderately reduced vibratory perception, coordination abnormalities, and injury to the cerebellum.[19] Neurocognitive testing revealed claimant had moderate to severe impairment in short-term memory and mild impairment in her attention span and concentration.[20] And neurophysiologic testing, which measures how fast nerve messages travel, indicated claimant had abnormal reaction time, abnormal postural balance, abnormal visual contrast, and an injury to the brain and peripheral nerves.[21] Indeed, those tests indicated claimant had more damage than the average person with documented toxic encephalopathy and chronic illness.

Blood tests were also administered at Dr. Ziem's request. Those tests indicated abnormalities. The amino acid analysis indicated all of claimant's amino acids, except for taurine, were low to deficient. The elemental analysis, which is purportedly an intracellular

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[17] *Id.*

[18] *Id.*, at 15.

[19] *Id.*, at 18-22.

[20] *Id.*, at 23.

[21] *Id.*, at 24-26.

analysis of the levels of essential minerals in the red blood cells, indicated claimant's zinc and manganese were low and her selenium was borderline.

Testing also indicated the adrenal gland was producing too much cortisol, which is a natural steroid that combats inflammation. According to Dr. Ziem, if not addressed the overproductive adrenal gland could lead to adrenal failure. Other tests indicated claimant's antioxidants (which attack free radicals in the body) were deficient and that claimant had elevated liver enzymes, which is indicative of ongoing liver damage.

Dr. Ziem's testimony is uncontradicted that she used tests and methods recommended by the United States government for evaluating neurotoxicity, neurophysiologic abnormalities, and balance instability. Likewise, the doctor's testimony is uncontradicted that the laboratories that provided the testing were certified.

Dr. Ziem testified that claimant's exposure to chemicals created inflammation and a biochemical reaction (neural sensitization) or cycle in the body that has just become known over the last five years.[22] The doctor explained that the adrenal gland reacts to inflammation by producing cortisol to suppress inflammation in the body. Neural sensitization, however, creates excess amounts of nitric oxide that combines with other free radicals that overcome the body's antioxidants. The free radicals combine and create peroxynitrite, which then causes extensive tissue damage throughout the body.[23] The inflammation process causes the body to become more acidic, which increases mineral loss as the body's minerals are used to buffer acids. And the doctor attributes that biochemical reaction to claimant's exposure to chemicals and fumes at respondent's plant. The doctor testified, in part:

> Q. (Mr. Phalen) Okay. Now, before we go on, doctor, and you've been most helpful in your explanations, okay, but this is going to be the basic premise of the defendant and what the judge will want to know. How could these exposures to chemicals at Russell Stover's over such a short period of time or what may be to some people very minor exposures cause such significant injury? Can you explain that to the judge in your own words?
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> A. (Dr. Ziem) Well, some of the exposures were not minor. The ammonia releases, ammonia is an extremely potent irritant and repeated major releases of ammonia, plus the ongoing irritant and neurotoxic exposure to the chlorinated products located right near her office, plus her recurring exposures to the irritant, neurotoxic and liver toxic agent methyl bromide, that combination of exposures, as

[22] *Id.*, at 32.

[23] *Id.*, at 50.

> well as the unvented combustion products that I mentioned, that comprises a chemical mixture. And the more chemicals in the mixture, the more synergistic the adverse effect. In other words, the more additive, what -- that's -- synergistic means much more additive, and this is a significant number of chemicals.
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> Repeated events of irritant exposure over the entire time she was in the plant with high levels of irritant exposures, with the ammonia releases and ongoing daily irritant exposures during the time she was in the plant, sets in motion the biochemical cycle that I described called neural sensitization. And once that cycle is set in motion, medical science currently does not know how to totally stop it. And it continues to perpetuate an ongoing chemical injury that affects the entire body, such as is described in the documents and such as I have discussed.
>
> The substances that are irritants only, such as ammonia, or irritant in addition to other effects, such as the chlorine, which is also neurotoxic, the methyl bromide, which is also neuro and liver toxic, and the combustion products, which are also neurotoxic, the irritant chemical mixture causes reactive upper and lower airway disease as discussed in more detail in the attachment to Exhibit 2.
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> The neurotoxic exposures, including the chlorinated compound, as well as the methyl bromide, and the neurotoxic substances in combustion products all contribute to causing her toxic encephalopathy and peripheral neuropathy.
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> The methyl bromide, in addition, is liver toxic. Bromine is more toxic to the liver than chlorine. Both of them are toxic, but bromine is more so and has caused ongoing liver damage. Each testing of her liver enzymes have shown elevated liver enzymes. Liver enzymes that are elevated for a period of weeks to maybe a month or so follow death of liver cells, so she has ongoing death of liver cells. So this is an ongoing process caused by the exposure to liver toxic agents, particularly methyl bromide.[24]

Dr. Ziem believes claimant's present problems are the natural progression of her chemical exposures at work. And once the biochemical cycle begins it continues in motion. Further, the doctor believes that because of claimant's exposures at work she has now become sensitive to household chemicals. Moreover, each exacerbation causes increased inflammation, which, in turn, causes increased degeneration and accelerates the aging process. The doctor wrote, in part:

> Deborah Chriestenson has toxic encephalopathy (349.82), which developed from the combination of exposures to inorganic chlorine, methyl bromide, pesticides, anhydrous ammonia and contributed to by unnecessary entry of combustion products including carbon monoxide into the work area. These constituted a

[24] *Id.*, at 63-65.

> chemical mixture, with synergistic effects. [Triphenyltin] was also an exposure, and there are probably other chemicals of exposure that she was not informed about.
>
> She also has peripheral neuropathy (357.7), reactive upper and lower airway disease (506.2; 506.4): the above chemicals are respiratory irritants, with serious irritation from anhydrous ammonia and inorganic chlorine/bleach and repeated other irritant exposure.
>
> She also has other effects of her exposure to gases and vapors (987.8), exhibiting the classic inflammation with widespread aching, fatigue, and inflammatory process involving other organ systems such as the gastrointestinal, genital urinary, blood vessel lining, and skin.[25]

It is true Dr. Ziem was the first to diagnose reactive airway disease. But Dr. Hull indicated claimant had asthma. Dr. Ziem believes Dr. Hull may have possibly meant reactive airway disease as it is sometimes referred to as asthma[26] and, furthermore, Dr. Hull neither tested for inhalant allergies nor prescribed medications for asthma.

Regarding claimant's smoking, Dr. Ziem stated that claimant had been a light smoker. Besides, the doctor maintains that smoking does not cause toxic encephalopathy, liver damage, neural sensitization, reactive airway disease, or the problems that claimant now has.[27] The doctor testified as follows:

> Q. (Mr. Webb) . . . Isn't it true that cigarette smoke has a laundry list of toxins?
>
> A. (Dr. Ziem) Yes. But it doesn't cause toxic encephalopathy, doesn't cause liver damage, it doesn't cause neural sensitization.
>
> Q. It does cause respiratory issues, though, correct?
>
> A. The diagnosis isn't respiratory issues. Her diagnosis is reactive airway disease and cigarette smoke doesn't -- a person smoking cigarette smoke doesn't get reactive airway disease from smoking. We don't know exactly why that is, but I have evaluated thousands of patients who are not -- who are smokers and none of them developed reactive airway disease. And most of the patients who have chemical injury actually were never smokers, who developed reactive airway disease, they were never smokers.

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[25] *Id.*, Ex. 2.

[26] *Id.*, at 89.

[27] *Id.*, at 88-89.

> So I have seen in my practice and in the medical literature no evidence that smoking causes reactive airway disease. I'm certainly not an advocate of smoking. It is an addicting habit, but it doesn't cause -- it doesn't cause any of the disabilities that she has.[28]

Finally, Dr. Ziem opined that claimant was unable to engage in any substantial and gainful employment as claimant even has problems with performing activities of daily living due to her cognitive impairment, impaired attention span, short-term memory difficulty, difficulty performing complex tasks, balance impairment, falling, difficulty with gripping and fine motor tasks, tremor, unpredictable visual blurring, frequent pain in her extremities, headaches, and severe exhaustion.[29] Moreover, the doctor believes that claimant has a 100 percent whole person impairment under the AMA *Guides*,[30] and that claimant was unable to perform any of the former work tasks identified by vocational rehabilitation expert Karen Crist Terrill in a list of tasks that claimant performed during the 15 years before her accident.[31]

Dr. Zwibelman contradicted Dr. Ziem's testimony. Dr. Zwibelman examined claimant for a second and final time in November 2001. At that time claimant reported pain with palpation but her neurologic examination was normal. Dr. Zwibelman did not find that claimant had toxic encephalopathy at that time as her cognition and mental status were normal. Likewise, he did not note any anatomic dysfunction, underlying tissue damage, or inadequate oxygen from cellular damage.

Based upon his examinations of claimant in 1999 and 2001, and after speaking with other doctors concerning chemical exposures, Dr. Zwibelman concluded that claimant had sustained no permanent injury or harm from her exposure to floor stripper at respondent's plant although she did have multiple trigger points and severe myofascial pain.[32] The doctor also initially opined claimant needed no restrictions, no additional medical treatment, and that she sustained no task loss due to that exposure. Later, however, he testified he

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[28] *Id.*

[29] *Id.*, at 58.

[30] *Id.*, at 59-60. The AMA *Guides* refers to the American Medical Ass'n, *Guides to the Evaluation of Permanent Impairment* (4th ed.). All references are based upon the fourth edition of the *Guides* unless otherwise noted.

[31] *Id.*, at 71-72.

[32] Zwibelman Depo. at 45.

had no opinion regarding claimant's physical limitations from her severe myofascial pain as no functional capacity evaluation was performed.[33]

When he last saw claimant, Dr. Zwibelman noted claimant had no tremor,[34] sensory loss, or impaired balance during his examination. At his deposition, Dr. Zwibelman testified that he thought some of the findings from Dr. Ziem's examination were voluntary; for example, the grip test findings. Dr. Zwibelman also testified that, according to a colleague, Dr. Ziem did not perform all of the tests that should have been done in a typical battery of neuropsychological testing. Dr. Zwibelman also challenged Dr. Ziem's diagnoses as he felt it was pure conjecture that claimant was exposed to toxic levels of chemicals. In addition, Dr. Zwibelman believed Dr. Ziem's diagnosis of peripheral neuropathy was clearly false as indicated by EMG studies. Furthermore, Dr. Zwibelman maintains that claimant did not have any evidence of reactive airway disease when he examined her in 1999 and 2001.

In short, Dr. Zwibelman does not believe that claimant's chronic headaches and myofascial pain were related to work. And the information he obtained indicated there was no solid evidence that multiple chemical sensitivity existed and that a larger body of evidence suggested it was merely psychogenic. Moreover, the doctor did not feel claimant's condition was debilitating when he examined her in 1999 and 2001. Although Dr. Zwibelman formulated his opinions believing claimant had only experienced one brief exposure to floor stripper fumes,[35] he later testified his opinions would not change whether claimant had one or multiple exposures.[36]

Personal injury by accident

There is no question that claimant's symptoms increased during her tenure working for respondent. Claimant's testimony is buttressed by that of Dr. Hull, who was treating her while she worked for respondent. There is no evidence that contradicts claimant's assertions that she encountered chlorine fumes, anhydrous ammonia fumes, methyl bromide, and combustion fumes at work. Similarly, the record does not establish that claimant is malingering. Conversely, respondent's medical expert, Dr. Zwibelman, testified

[33] *Id.*, at 54.

[34] The doctor later clarified that claimant did have a tremor but that it was quite a bit less when she was distracted.

[35] Zwibelman Depo. at 22, 35.

[36] *Id.*, at 60.

that claimant's symptoms would be very real to her.[37] Accordingly, the record establishes a temporal relationship between claimant's increased symptoms and her employment with respondent.

The outcome of this claim hinges upon which doctor the Board finds more persuasive. It is true that Dr. Ziem is not board-certified in any particular medical specialty. But she is board-eligible. More importantly, she has practiced occupational and environmental medicine for 40 years, taught occupational medicine for approximately 25 years, and has specialized in treating chemical illness for decades. There is no question this record establishes that Dr. Ziem is knowledgeable about the harmful effects of chemicals as she drafted fact sheets for thousands of chemicals for the State of New Jersey. Her credentials are impressive.

Dr. Zwibelman examined claimant on two occasions, the last being in 2001. Dr. Zwibelman is board-certified in psychiatry and neurology. His experience with claims of chemical illness is limited as compared to Dr. Ziem. Indeed, it appears much of Dr. Zwibelman's knowledge regarding chemical exposures was provided by the Environmental Research Foundation and a toxicologist at the Kansas University Medical Center, both of which he contacted after examining claimant in February 1999.

Dr. Zwibelman was not initially aware that claimant was alleging multiple chemical exposures as he thought she had been exposed to floor stripper fumes for approximately 15 minutes. Conversely, Dr. Ziem examined claimant with the knowledge she had been exposed to, among other things, chlorine, vehicle exhaust, methyl bromide, anhydrous ammonia fumes, pesticides, and floor stripper fumes.

At her deposition in September 2008, Dr. Ziem set out her opinions regarding the biochemical mechanism or cycle that was responsible for many of claimant's symptoms. Dr. Ziem also testified that claimant's blood tests, among others, provided objective evidence of claimant's chemical illness. Dr. Zwibelman neither addressed that purported objective evidence nor Dr. Ziem's opinions regarding the disabling biochemical process that comprises claimant's chemical illness.

In the context of this record, the Board finds that Dr. Ziem's credentials establish her as an expert in the controversial field of chemical illness. Her explanation of the biochemical processes involved is uncontradicted. Likewise, it is uncontradicted that objective findings from tests recognized by the United States government and laboratory results from certified laboratories support her conclusions. And although it is true Dr. Ziem

[37] *Id.*, at 49.

did not have for review copies of claimant's medical records that preexisted her employment with respondent, the doctor's opinions are persuasive.

Based upon the above, the Board finds it is more probably true than not that claimant's exposures to chemicals and fumes while working for respondent through December 18, 1998, caused her personal injury by accident arising out of and in the course of her employment with respondent.

The Workers Compensation Act defines "accident" as follows:

> "Accident" means an undesigned, sudden and unexpected event or events, usually of an afflictive or unfortunate nature and often, but not necessarily, accompanied by a manifestation of force. The elements of an accident, as stated herein, are not to be construed in a strict and literal sense, but in a manner designed to effectuate the purpose of the workers compensation act that the employer bear the expense of accidental injury to a worker caused by the employment.[38]

The evidence establishes that there were numerous occasions that claimant encountered chemicals and fumes during her tenure with respondent. Accordingly, claimant's injury is in the nature of a repetitive trauma. Therefore, the Board finds that claimant's last day of employment, or December 18, 1998, should be used as the date for computing claimant's benefits for this repetitive trauma injury.

Extent of disability

Dr. Ziem determined claimant had sustained a 100 percent whole person impairment under the AMA *Guides.* Moreover, the doctor concluded claimant was unable to engage in substantial, gainful employment due to her cognitive impairment, impaired attention span, short-term memory difficulties, difficulties with complex tasks, impaired balance, falling, difficulty with grip and fine motor tasks, tremor, unpredictable visual blurring, frequent pain in her extremities, headaches, and extreme exhaustion. According to Dr. Ziem, claimant has difficulty performing the activities of daily living.

As indicated above, the Board is persuaded by Dr. Ziem's testimony. Claimant's testimony about her personal condition, coupled with Dr. Ziem's testimony, establishes that it is more probably true than not that claimant is unable to engage in substantial and gainful employment. Consequently, claimant is entitled to receive permanent total disability benefits under K.S.A. 44-510c (Furse 1993).

[38] K.S.A. 1998 Supp. 44-508(d).

Medical benefits

Claimant is entitled to receive such medical treatment that is necessary to cure or relieve the effects of her injury. The Workers Compensation Act provides, in part:

> It shall be the duty of the employer to provide the services of a health care provider, and such medical, surgical and hospital treatment, including nursing, medicines, medical and surgical supplies, ambulance, crutches, and apparatus, and transportation to and from the home of the injured employee to a place outside the community in which such employee resides, and within such community if the director in the director's discretion so orders, including transportation expenses . . . as may be reasonably necessary to cure and relieve the employee from the effects of the injury.[39]

But the charges of the health care providers must comply with the Director's fee schedule:

> All fees and other charges paid for such treatment, care and attendance, including treatment, care and attendance provided by any health care provider, hospital or other entity providing health care services, shall not exceed the amounts prescribed by the schedule of maximum fees established under this section or the amounts authorized pursuant to the provisions and review procedures prescribed by the schedule for exceptional cases. A health care provider, hospital or other entity providing health care services shall be paid either such health care provider, hospital or other entity's usual charge for the treatment, care and attendance or the maximum fees as set forth in the schedule, whichever is less. . . .[40]

Consequently, respondent is liable, subject to the fee schedule, for such past, future, and ongoing medical treatment reasonably necessary to cure and relieve the effects of claimant's chemical exposures. The Board notes there are some unpaid medical bills. If the parties disagree about payment of any particular outstanding medical bill, the parties shall present the issue to the Judge for determination.

AWARD

WHEREFORE, the Board modifies the July 27, 2009, Award entered by Judge Klein.

Deborah Chriestenson is granted compensation from Russell Stover Candies and its insurance carrier for a December 18, 1998, accident and resulting disability. Based

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[39] K.S.A. 1998 Supp. 44-510(a).

[40] K.S.A. 1998 Supp. 44-510(a)(4)(C).

upon an average weekly wage of $407, Ms. Chriestenson is entitled to receive 460.66 weeks of permanent total disability benefits at $271.35 per week, or $125,000, for a permanent total disability and a total award not to exceed $125,000, which is all due and owing less any amounts previously paid.

Respondent is liable, subject to the fee schedule, for such past, future, and ongoing medical treatment reasonably necessary to cure and relieve the effects of claimant's chemical exposures. Should the parties disagree about payment of any particular outstanding medical bill, the parties shall present that issue to the Judge for determination.

Claimant is entitled to unauthorized medical benefits up to the statutory maximum.

The record does not contain a fee agreement between claimant and her attorney. K.S.A. 44-536(b) requires the written contract between the employee and the attorney be filed with the Division for review and approval. Accordingly, under K.S.A. 44-536(b), claimant's attorney is only entitled to such fee as is approved.

The Board adopts the remaining orders set forth in the Award to the extent they are not inconsistent with the above.

IT IS SO ORDERED.

Dated this ____ day of April, 2010.

BOARD MEMBER

BOARD MEMBER

BOARD MEMBER

DISSENT

The undersigned respectfully dissent from the decision of the majority above. The majority, to a significant degree, finds both the cause of claimant's impairment and the resulting permanent disability to be supported by the testimony of Dr. Ziem. It should first be noted that Dr. Ziem, while listing an impressive background, is not board-certified in any specialty. Dr. Zwibelman, board-certified in psychiatry and neurology, found claimant's ongoing problems to stem from preexisting conditions and claimant's long history of cigarette smoking. Additionally, Dr. Zwibelman had the opportunity to examine claimant beginning in February 1999, shortly after claimant's employment with respondent ended. Dr. Ziem did not see claimant until 2006, nearly 8 years after claimant's employment with respondent concluded. Dr. Ziem was of the opinion that claimant was in relatively good health before beginning her employment with respondent. Dr. Ziem was unaware of any frequent or severe symptoms, neurological symptoms, respiratory symptoms or fatigue. Additionally, Dr. Ziem was provided no medical records regarding claimant's health prior to her employment with respondent.

Claimant's past medical history is significant in this matter. Her history of migraine headaches goes back to 1986 when she had new carpet installed in her home. Claimant suffered migraines for approximately a year after this incident and was treated by a neurologist and diagnosed with daily left hemicranial headaches, memory problems, paraphasic lapses and left temporal complex partial seizures. Additionally, claimant lost her license as a nurse in the mid-1980s due to the seizures. Dr. Ziem noted the seizures were not a problem when claimant began working for respondent. But, she was unaware that claimant was taking Dilantin for the seizures from the mid-1980s up to the time claimant began working for respondent. Dr. Ziem was unaware that claimant suffered tremors in her right arm in 1993 and was taking Inderal for those tremors. Claimant underwent a multitude of tests including a test for multiple sclerosis before beginning with respondent. However, again, Dr. Ziem was unaware of this history as none of claimant's prior medical history was made available to her before the examination in 2006.

Dr. Ziem's diagnoses were made without the availability of MSDS sheets. She was provided no information as to the types of chemicals or the strength of chemicals to which claimant was allegedly exposed. Additionally, Dr. Ziem was unaware of the duration of the exposures, except from claimant's testimony and memory. There were also no medical reports corroborating claimant's allegations of the types of chemicals, or the duration or strength of chemical exposures. Dr. Ziem was the first and only health care provider to diagnose claimant with reactive airway disease. Additionally, she found claimant's history of cigarette smoking to be irrelevant to claimant's condition. Dr. Zwibelman testified that cigarette smoke is an extremely toxic chemical.

Dr. Zwibelman performed a full neurological examination on claimant with the results being normal. Dr. Zwibelman found Dr. Ziem's opinions to be flawed, without merit and based on conjecture.

The undersigned would find that claimant has failed to prove that she suffered anything beyond a temporary exacerbation of her ongoing and preexisting multiple conditions. The opinion of Dr. Zwibelman is based on a review of claimant's past medical history and a full neurological evaluation. The opinion of Dr. Ziem is based almost solely on the information provided by claimant, without the benefit of claimant's past medical history. Her only contact with claimant did not occur until 8 years after claimant last worked for respondent.

Dr. Zwibelman's opinion should be adopted in this matter and claimant should be denied any benefits beyond short-term medical treatment for the temporary aggravations suffered while claimant was employed with respondent.

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BOARD MEMBER

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BOARD MEMBER

c: William L. Phalen, Attorney for Claimant
Brenden W. Webb, Attorney for Respondent and its Insurance Carrier
Thomas Klein, Administrative Law Judge